DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-001419 Address: 333 Burma Road **Date Inspected:** 12-Feb-2008

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1530 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Xu Le Feng **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** SAS superstructure

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector Joe Lanz arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China to periodically monitor welding and Quality Control (QC) functions during first shift. While on site the QA Inspector observed and/or discovered the following.

New Tower Shop

89 Meter Mockup diaphragms, MU58-MA-27:

The QA Inspector randomly observed ZPMC welding personnel Pan Ming, ID 066673 welding corner stiffener assembly MUB-AA21 to skin plate C, weld number 30 as shown on drawing MUSB-AA22-P939. The welding was performed in the 2G (horizontal) position utilizing the gas shielded flux cored arc welding (FCAW-G) process with a 1.4mm diameter electrode, filler metal appeared to be E71T-1, brand name; Supercored 71H. The QA Inspector observed the ZPMC QC Certified Welding Inspector Xu Le Feng monitoring the welding and the ZPMC QC inspector Yang Qing Feng was verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification WPS-B-T-2332-Tc-P4-F. The QA Inspector observed that the preheat and welding parameters of 304 amps, 30.6 volts and travel speed of 312mm per minute as measured by the QC Inspector appear to be within the WPS ranges. The work observed by QA Inspector appears to meet the minimum requirements in accordance with the WPS and contract documents.

The QA Inspector randomly observed ZPMC welding personnel Liu Xie, ID 066236 welding corner stiffener assembly MUB-AA21 to skin plate C, weld number 47 as shown on drawing MUSB-AA22-P939. The welding

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was performed in the 2G (horizontal) position utilizing the gas shielded flux cored arc welding (FCAW-G) process with a 1.4mm diameter electrode, filler metal appeared to be E71T-1, brand name; Supercored 71H. The QA Inspector observed the ZPMC QC Certified Welding Inspector Xu Le Feng monitoring the welding and the ZPMC QC inspector Zu Feng was verifying that the welding parameters and pre-heat were in accordance with the Welding Procedure Specification WPS-B-T-2332-Tc-P4-F. The QA Inspector observed that the preheat and welding parameters of 306 amps, 31.4 volts and travel speed of 308mm per minute as measured by the QC Inspector appear to be within the WPS ranges. The work observed by QA Inspector appears to meet the minimum requirements in accordance with the WPS and contract documents.

Cutting Facility

The QA inspector observed there was no work performed in the cutting facility on this date. The previously cut plate was stored on wood dunnage and appeared to be properly marked in accordance with contract requirements. The QA inspector observed that completed floor plates for the orthotropic box girders were stored immediately outside the cutting facility. The floor beams were stored off the ground on wood and were covered with tarps.

Summary of Conversations:

No relevant conversations on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Lanz,Joe	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer